Coastal Observation Technology System Project Summary – 2004

Project Name/Title: Southeastern Universities Research Association (SURA) Coastal Ocean Observing and Prediction (SCOOP) Program

Date Project Initiated: September 2004

Recipient Institution: Southeastern Universities Research Association

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Project Web sites: www.sura.org (click on SCOOP for overview) http://twiki.sura.org (for project status)

www.openioos.org (for some project deliverables)

Brief Project Summary: In the coming year, the SCOOP program will implement key elements of a distributed system for assessing and predicting environmental response to extreme events in the eastern U.S. coastal zone, from Canada to Mexico. The program will focus on storm surge, wind waves, and surface currents, with special attention on predicting and visualizing phenomena that cause damage and inundation of coastal regions during severe storms and hurricanes. Partners include university researchers and relevant NOAA, Navy, and other federal agency program offices. The agency partnerships will facilitate the transition of well-tested research capabilities to an improved operational prediction system.

SCOOP is emphasizing the transition of "pre-operational" research activities to activities that are operational. This approach, which is the signature of SCOOP, is referred to as "interoperability" and is intended to help bridge the historical gap between research and operations. Each type of activity has its own set of goals and anticipated outcomes. It is the SCOOP mission to create an effective link between them. Thus, SCOOP will bring together science leaders from the research community with operational leaders and user groups to develop and implement specific objectives for numerical modeling, real-time data exchange, and continuous operational prediction and visualization.

Accomplishments to Date: SCOOP funding began in September 2004. Extensive project planning has taken place, and some of the first deliverables will appear in October of this year.

Objectives: It is intended that these three activities will merge into a seamlessly integrated system.

- A data-standards development process;
- A "data grid" demonstration of interoperability at the data level based on Open GIS Consortium (OGC) standards for Web services; and
- A "model grid" demonstration of coupled storm-surge and wind-wave prediction models that employ "grid" technologies based on standards from the Open Grid Services Architecture (OGSA).

Partners: Texas A&M, University of Alabama at Huntsville, University of Miami, Virginia Institute of Marine Science, Louisiana State University, Gulf of Maine Ocean Observing System, University of North Carolina, University of Florida, University of Delaware, Southeast Atlantic Coastal Ocean Observing System.